



United States Environmental Protection Agency  
Office of Environmental Measurement & Evaluation  
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## Laboratory Results

September 6, 2017

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US EPA New England R1

Project No: 17080029

Project: Merrymeeting River - New Durham, NH

Analysis: Total Phosphorus in Water as P

EPA Chemist: Bhavita Patel

Date Samples Received by the Laboratory: 08/15/2017

### Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, EIASOP-INGTP11.

The SOP is based on the Lachat Method 10-115-01-1-F and EPA method 365.1 "Determination of Phosphorous by Semi-Automated Colorimetry", Revision 2.0, August 1993 .

The method used for digestion of soil samples was developed at NERL.

Samples were analyzed on a Lachat Automated Ion Analyzer.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

Data were reviewed in accordance with the internal verification procedures described in the EPA New England Quality Manual for NERL.

If you have any questions please call me at 617-918-8340.

Sincerely,

17080029TP

**Qualifiers:**

**RL** = Reporting limit

**ND** = Not Detected above Reporting limit

**NA** = Not Applicable due to high sample dilutions or sample interferences

**NC** = Not calculated since analyte concentration is ND.

**J** = Estimated value

**J1** = Estimated value due to MS recovery outside acceptance criteria

**J2** = Estimated value due to LFB result outside acceptance criteria

**J3** = Estimated value due to RPD result outside acceptance criteria

**J4** = Estimated value due to LCS result outside acceptance criteria

**E** = Estimated value exceeds the calibration range

**L** = Estimated value is below the calibration range

**B** = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.

**R** = No recovery was calculated since the analyte concentration is greater than four times the spike level.

**P** = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.

**C** = The identification has been confirmed by GC/MS.

**A** = Suspected Aldol condensation product.

**N** = Tentatively identified compound.

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**Merrymeeting River - New Durham, NH**

**Total Phosphorus in Water as P**

Matrix: Water

<b>Sample Number</b>	<b>Lab ID</b>	<b>Collected</b>	<b>Extracted</b>	<b>Analysis</b>	<b>Concentration ug/L</b>	<b>RL ug/L</b>	<b>Qualifier</b>
PM01	AB69062	08/15/2017 10:14	08/22/2017	08/23/2017	<b>49</b>	5	
Comments:							
MM1	AB69063	08/15/2017 10:12	08/22/2017	08/23/2017	ND	5	
Comments:							
PM02	AB69064	08/15/2017 10:32	08/22/2017	08/23/2017	<b>38</b>	5	
Comments:							
MM2	AB69065	08/15/2017 10:43	08/22/2017	08/23/2017	<b>20</b>	5	
Comments:							
MM3	AB69066	08/15/2017 10:58	08/22/2017	08/23/2017	<b>17</b>	5	
Comments:							
DUP 3	AB69067	08/15/2017 10:43	08/22/2017	08/23/2017	<b>22</b>	5	
Comments:							
Blank			08/22/2017	08/23/2017	ND	5	
Comments:							

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Merrymeeting River - New Durham, NH

MATRIX SPIKE (MS) Results

SAMPLE ID	PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
AB69067	Total Phosphorus in Water as P	97.8	22	125	105.3	85 - 115

Comments:

MATRIX SPIKE DUPE (MSD) RESULTS

SAMPLE ID	PARAMETER	MSD SPIKE ADDED	MSD CONCENTRATION ug/L	MSD % REC	RPD %	QC LIMITS RPD
AB69067	Total Phosphorus in Water as P		126	106	1	20

Comments:

Laboratory Duplicate Results

SAMPLE ID	PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUP RESULT ug/L	PRECISION RPD %	QC LIMITS (%RPD)
AB69067	Total Phosphorus in Water as P	22	21	5	20

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**Merrymeeting River - New Durham, NH**

**Laboratory Fortified Blank (LFB) Results**

PARAMETER	LFB AMOUNT SPIKED ug/L	LFB RESULT ug/L	LFB RECOVERY %	QC LIMITS %
Total Phosphorus in Water as P	97.8	98.8	101.0	90 - 110

Samples in Batch: AB69062, AB69063, AB69064, AB69065, AB69066, AB69067

**REGION 1**

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## CHAIN OF CUSTODY RECORD

[illegible]

17080029 TSS  
17080029 OPHOS  
17080029 TP

17080029 \$TNL  
17080029 AMMO

1- 20230